

THE
Medical and Agricultural Register.

VOL. I.]

FEBRUARY, 1806.

[No. 2.

M E D I C A L.

Method to be pursued with Persons frozen.

REASON and humanity demand, that a knowledge of the proper mode of treatment of persons apparently dead from excessive cold, should be as generally diffused as possible. The following directions, therefore, taken from *Willich's Domestic Encyclopedia*, on this important subject, at a season of the year when incidents of this nature are so liable to happen, cannot be thought unseasonable or improper.

“In cold countries the frost frequently proves fatal to mankind, not only producing mortification, but even death itself. The hands of those unfortunate persons, who die in consequence of intense cold, are first seized, till they lose the sense of feeling; next a drowsiness pervades the whole body, which, if indulged in, is attended with imperceptible dissolution.

“If animation be suspended, from severe frost, the following will be the external symptoms: Rigidity of the whole body, and inflexibility of the limbs, which continue in the same posture as the frozen person adopted during the unfortunate accident; the teeth are closed; froth sometimes issues from the mouth; there is a total insensibility to all stimulants; the extremities are partly mortified, and in some instances spontaneously separate.

“Notwithstanding these unfavorable appearances, every exertion ought to be instantly made, to restore life, if possible, by strictly adhering to the following directions; because there is a greater probability of recovering such persons, than those

apparently deprived of life in consequence of drowning, or suspension by the cord.

“No external warmth of any kind must be applied to frozen persons, till the internal or vital heat be excited, when the former also should be carefully and very gradually adapted to the manifest degree of the latter. Hence the whole process should be performed either in the open air or in a cold room; the body carried cautiously, in a posture somewhat erect, to the nearest dwelling; the head turned gently towards the right side; and the clothes carefully taken off, without injuring the skin or bending the limbs. These precautions are necessary, as a rough treatment may easily occasion dislocations of the joints, or fractures of the bones. Next, the whole naked frame, excepting the face, should be covered with a bed of snow, from twelve to eighteen inches in thickness; or, if this cannot be procured, cold water and ice may be substituted, and cloths successively dipped in it may be spread over the whole body, especially the head and breast. After continuing these effusions, gentle frictions with flannel or soft brushes, likewise immersed into cold fluids, should be commenced; alternately making use of the shower-bath; and persevering in these attempts for an hour at least, when the body ought to be left undisturbed for some minutes. If no signs of life appear, clysters of cold water, with oil and vinegar, or six ounces of brandy, are to be administered, and the former process again and again repeated; so that five or six hours sometimes elapse before any symptoms of animation are perceptible. As soon, however, as there is the least prospect of recovery, *warm* fomentations must be resorted to; the degree of friction cautiously increased; or the patient placed in bed between two robust persons; emollient clysters prepared; and when he is able to swallow, a cup of tea with a little vinegar, wine, or brandy, may be allowed. In many desperate instances, however, it will perhaps be proper to perform venesection, to introduce air into the lungs by means of the common bellows, or to have recourse to the electrifying machine, or the earth-bath, &c.; but such cases must be submitted to the judgment of the profession.”

Death or mortification is the most certain consequence of the sudden application of heat to the body or part frozen; a melancholy instance of which once fell under the observation of the writer of this article. A young man, on a severe winter's night, who, from certain circumstances, it was known must have lain several hours bleaching in the wind and in the snow, was discovered in the morning; and on being taken up, the spark of life was not so far extinct but that he was able

to open his eyes and cast a look on his benefactors. It was but a look. He was carried almost momentarily into a house, and laid before a large fire, where, alas! he never showed any further signs of life.

If a part, as a foot or a hand, be frost-bitten, let it be thawed by rubbing it with snow, and then very gradually exposed to the influence of a warmer temperature.

An almost infallible Remedy in the Croup.

Dr. JOHN ARCHER, of Harford county, Maryland, has found, by a number of decisive experiments, that the seneka root, (*polygala senega, lin.*) a root well known to physicians, is an almost infallible remedy in croup, or the *cynanche trachealis* of Cullen, a species of quinsy. From a letter written by Dr. Archer, addressed to Dr. Barton, of Pennsylvania College, and published in the Medical Repository, we shall communicate to our readers the following important particulars.

"I have (says Dr. Archer) in a great many instances, found a decoction of the seneka the most powerful medicine in the cure of this disease, and I am happy to tell you, that I believe it may be depended on. I make a strong decoction of the root, in the following manner, viz. half an ounce of the seneka, in coarse powder, is boiled in eight ounces of water down to four. Of this I give a tea-spoonful every half hour or hour, as the urgency of the symptoms may require, and at intervals a few drops, to keep up the stimulus, until it either acts as an emetic or cathartic. I then repeat it in smaller quantities, so as to preserve the stimulus of the seneka constantly in the mouth and throat.

"If the disease be more advanced, and the breathing more difficult, with a peculiar harsh or shrill sound, like air forcibly drawn through a small aperture, attended with a retraction of the upper part of the abdomen [belly,] under the cartilages of the ribs; I then give calomel freely and frequently, and rub mercurial ointment on the throat and contiguous parts, so as to affect the glands of the throat and mouth, as quickly as possible. This I do, that the mercury may co-operate with the action or stimulus of the seneka, and thereby hasten the separation of the membranous substance formed in the trachea* [windpipe.]

* "There have been many dissections of infants who have died of this disease; and almost constantly there has appeared a preternatural membrane, lining the whole internal surface of the upper part of the trachea" [windpipe.]

CULLEN.

“In this method I have succeeded in the cure of the croup, even beyond my most sanguine expectations.”

This disease, ever memorable by the death of the late and much lamented GEORGE WASHINGTON, is, when it occurs, often and suddenly fatal to children. Its peculiar symptoms are, fever, cough, hoarseness, “with some shrillness and ringing sound, both in speaking and coughing, as if the noise came from a brazen tube.” Such is the exquisite degree of danger in this disease, and so suddenly does it run through its different stages, that parents need not be admonished, when these symptoms occur, that no time be lost in seeking for medical aid. It must, however, afford them much consolation, in those scenes of suffering of which they are made the pained spectators, in this disease, to be informed, that physicians are in the possession of a remedy, which promises so far to be successful.

We wish to learn what success has attended the use of this medicine, in the hands of other medical men. Any who have, or may hereafter be induced to make trial of it, will oblige us by communicating the result of their experience.

AGRICULTURAL.

IN our first number we presented our readers with the outlines of a *Treatise on the Culture and Management of Fruit Trees*, by WILLIAM FORSYTH; detailed the particulars of a composition, with the manner of its application, for curing all wounds or injuries inflicted in them; and recited some extracts from letters of good authority, in confirmation of the success of this method of treating fruit and forest trees, both in Europe and in America.

The little trouble and the less expense of collecting the materials and preparing this composition, the ease with which it may be preserved from one month to another, and the simple manner of its application, are considerations highly favorable to the adopting of Mr. Forsyth's practice. There is, however, one forbidding circumstance,—the labor of preparing the trees, *when in their worst condition*, for its application. The expense in England, Mr. Forsyth says, reckoning every probable charge, on an average will not exceed *six pence* per tree: in this country it would be something more. In order, however, that we may come to something like a conclusion on this subject, we should do well to notice, that there are *two* important objects proposed, by Mr. Forsyth's system, to the cultivator:

1. The preservation of trees from decay.
2. The restoration of them to health and vigor, after they have fallen into a rotten and decayed state.

The process to answer the *first* intention is simple and easy; as in case of accidental injury, or upon lopping off a large limb; it is simply to round off the edges of the wound, and to apply the composition. Thus far, at least, we believe this improvement of Mr. Forsyth may be advantageously adopted by the people in these States. Large limbs, when it is necessary to remove them, should be trimmed close, and the composition immediately applied. In this every one will find his account, and will at the same time be acquiring that experience, which will enable him to judge of the propriety or advantage of a further application of this system to his rotten, hollow, and decaying trees.

Having premised these observations, we shall next present our readers with Mr. Forsyth's account of two diseases, very common and ruinous to trees.

"A Description of the Canker—Its Origin and Progress—Full Directions for curing it.—Of the Gum and its Remedy."

"THE canker is a disease incident to trees, which occasions the bark to grow rough and scabby, and turns the wood affected to a rusty brown color. This disease, if no remedy be applied, will in time totally kill the tree.

"Apple trees are very liable to be affected with the canker, from the following causes, viz.

"From injudicious pruning, and from injuries sustained in applying ladders, [and from pounding, beating, and thrashing with poles,] in gathering the fruit: these injuries are very hurtful to the tree, and will infallibly bring on the canker.

"Another cause of the canker is, when we have very wet autumns, such as that of 1799, which prevents the young wood from ripening, and a hard frost setting in after, it kills the young shoots; these, if left on the tree, will bring on the canker, and increase it rapidly. Birds and insects devouring the buds will have the same effect.

"Careless people frequently leave the dead shoots on the tree throughout the summer, which will infallibly bring on the canker. Some even leave them for years, until the tree is totally killed. They should be cut off in the end of April or beginning of May, as by that time you will be able to see how far the disease has advanced. I would advise to cut two or three buds, or even more, below the apparently diseased part, as the canker frequently reaches a great way farther in the heart of the shoot, than it appears to do on the outside; you

must cut down till the brown color in the shoot disappears, and nothing remains but sound white wood.

“ The truth of the foregoing observations will appear evident to any person who takes notice of the apple trees, with their mutilated stag-looking heads, as he rides or walks along the road. [Mr. Forsyth discountenances the common opinion, that canker proceeds from the nature of the ground in which trees are planted.]

“ The canker, as before observed, proceeds from bruises in the bark, from limbs cut off, &c. When these limbs begin to rot and grow hollow, they convey the canker to the root; for it always proceeds from the branches and stem to the roots, and never from the roots to the tree. It is granted, however, that all fruit trees love a fine rich mellow loam, and thrive much better in it than in a shingly or gravelly soil.

“ When by accident, or improper treatment, trees receive large wounds, and the cure is left to nature, they are frequently overrun with gum and canker, which, if not checked, will in a short time totally ruin them. In this case you must carefully pare off, with a draw-knife, or any other convenient instrument, all the diseased part of the bark. The inner white bark is frequently infected; this must also be cut away, till no appearance of infection remains. The infection in the inner bark appears like dots made with a pen, all of which must be cut clean out; for, if any part of the canker be left, it will infect the new wood and bark. Wherever you see gum oozing out, you may rest assured that the canker is not quite eradicated; which, if suffered to remain, will spread till the whole tree becomes a mass of gum and canker, and will be killed in a very short time.

“ When the trunk is become hollow, cut the loose rotten part clean out, till you come to the sound wood, taking care to round the edges of the hollow part; then apply the composition in a liquid state, laying it on with a painter's brush, wherever the cankered bark has been pared off, or the dead wood cut out, till these places are entirely covered with it: when that is done, shake some of the powder of wood ashes and burnt bones over the composition, and pat it gently down with your hand. [See No. I. pages 7, 8, 9.]

“ If the foregoing directions be carefully followed, the canker will be completely eradicated, and the hollow trunk in time be filled up with sound wood. When the stem is much decayed, it will be absolutely necessary to open the ground, examine the roots, and cut off all the rotten parts.

“ When you have examined all the old wounds, where large limbs have been cut off, you should next examine the old bark, and if you find the outside of it wrinkled and cracked, pare it

off, as it is always, when in that state, very much hurt by the canker; this should be done with the draw-knife, or other sharp instrument; then apply the composition as before directed, which will bring a fine smooth bark under it. In the succeeding winter or spring, you will see all the plaster, with the old part of the bark that was left in the hollow parts of the tree, or where old branches had been amputated, peeling off and shewing the smooth bark underneath. You should then scrape off, with a wooden or bone knife, what old bark remains in the hollows, where the draw-knife could not reach without cutting too much away. When that is done, mix up some fresh cow-dung with soap-suds and urine, making it very thin, and give the tree a coat of this mixture all over where the bark has been scraped off: the cow-dung will adhere to it, and heal the parts where you were obliged to scrape to the inner bark. This wash will remain till the fresh bark comes on; then it will be discharged of itself during the summer, or the next spring, leaving a new fresh smooth bark where the old and cankerous was taken off. Next spring, if any of the old bark remains, you may repeat the same operation, which will cause all the remaining old bark to slough off like a scab from a wound on the human body. By these means you will keep your trees in a fine flourishing healthy state, and in general, prevent them from becoming bark-bound.

“Remember to cut off all the ends of the small shoots, where the canker had injured them last year. Cut off also the old fruit stalks, and all the small dead stubs, which, if left, will never fail to bring on the canker.

“How common is it to see, in all parts of the country, great numbers of trees so affected with this disease, as not to produce fruit enough in twelve or fourteen years, to pay half the expense attending them; whereas, if they were to be managed according to the foregoing directions, they would more than pay all the expense in three years.

“The gum is a kind of gangrene, incident to fruit trees of the stone kind, and arises from the following causes: from injudicious pruning, from bruises, or any injuries received in the wood or bark; it may also be occasioned by a careless application of ladders, in gathering the fruit, but it particularly originates where large limbs have been lopped or broken off. This disease may be known before the gum itself makes its appearance. The bark at first becomes of a brownish color, which gradually grows darker, till at last the gum begins to ooze out like little blisters. As soon as any of these symptoms are observed, the infected part should be cut out with a sharp instrument, and the composition and powder applied immedi-

ately. You must observe to cut out the gum perfectly clean; you will see it oozing out from between the wood and bark: this must be followed till you come to the white clean bark and wood. If afterwards any gum should make its appearance, it must be scraped off; which is best done when it is moistened with rain, as you can then scrape it off easily, without hurting the bark. This must be done without delay, otherwise the disease will rapidly advance."

Gypsum, better known by the Name "Plaster of Paris"—Signs by which to judge of its Purity. By a Member of the Kennebeck Agricultural Society.

[Extracted from a paper published by the Massachusetts Agricultural Society.]

"THOUGH plaster of Paris has long been used in the arts, yet within forty years only is it understood to have been applied to agricultural uses. Mr. Meyer, a clergyman of the canton of Berne, in Switzerland, is the first who made it known as a manure, to the lovers of agriculture. The intelligence soon communicated itself to the middle states of the American union, probably by the means of their German settlers. From these two centres the practice is gradually extending itself; but less gradually perhaps in Europe than in the United States.

"The plaster employed in America, is sometimes shipped from Havre de Grace, in France; but it is more constantly brought from Nova Scotia. It is doubtful which of those is the best, when applied as a manure, in the American climate.

"The plaster or gypsum imported into the United States, when proper for agricultural purposes, has the following *signs*: Before it is pounded it exhibits many shining specks, somewhat resembling those seen in loaf sugar; its particles are often arranged in figures more or less regular; it has no constant color, though parts of it are frequently of a dirty pale yellow brown, a pale pink, or a pale blue color; its weight seldom very much exceeds double the weight of water, when the specimen is pure; and the nail of the finger commonly makes an impression upon its surface: when it is ground for a short time between the teeth, it ceases to be gritty. If the powder be placed in an iron pot over the fire, it will briskly bubble (or seem to boil) without the aid of moisture, commonly sending out a smell like that of brimstone; and while bubbling, it is said that it will admit of a straw being thrust to the bottom of the pot. Powdered plaster may be dissolved in about 500 times its weight of spring water, at the common temperatures

of the rooms in which we live ; but when the water is heated considerably, more may be dissolved, though the chief of the extra quantity will be deposited when the water becomes cool again. If the plaster be moist, it seems to rust iron more readily than mere moisture alone ; for nearly one half of the weight of plaster (in the common temperature of the air) consists of vitriolic or sulphuric acid.* This quantity of incorporated acid, probably prevents the effervescence of plaster with fresh quantities of acid, when the plaster is pure.

“ For common farming purposes, it may be sufficient to know, that *dry* powdered plaster, when well heated over the fire, will bubble briskly, and in general will yield a smell like that of brimstone. The trial by the teeth and by the nail may also be attended to.”

N. B. Any who may have been in the use of the plaster, would oblige us, and undoubtedly gratify the public, by a communication of their success, the kind of soil, the manner and the purpose for which it was applied.



Some Experiments on Sea-Coal as a Manure. By THOMAS EWELL.

[From the Washington Federalist.]

IN the proposals I have issued, for the publication of a new work on chemistry, to be adapted for the use of the public in general, it is stated, that I would relate some experiments, instituted to throw light on the art of enriching impoverished lands. The result of several of these has so far exceeded my sanguine expectations, that I hasten to publish them; hoping to turn the attention of farmers to a subject by which their interests may be incalculably promoted.

From a train of reasonings, I was led to believe, that the common sea, pit, or mineral coal, which is so abundant in the United States, when finely pulverized, might prove a useful manure. To ascertain the truth of this, I made the following experiment.

In three small pots I put equal quantities of a yellow clay, which had lately been removed from several feet below the surface of the earth. To the first pot, a table spoonful of finely powdered pit-coal was added ; to the second, the same quantity of powdered charcoal [blacksmith's coal] obtained from the common oak ; and the third was left without any addition. The same number of sound grains of corn were planted in each ; the same quantity of water was daily added to each ; and they were exposed in similar situations to the actions of

* Gypsum, in general, if supposed divided into ten parts, contains five of acid and three or four of calcareous matter, the rest being water.

light. The rapidity of the growth of the corn in the pot with sea-coal, exceeded any thing of the kind I ever witnessed. Many days did not elapse before this corn was four inches high, while at this time, that with the common charcoal was not two inches high, and that with the clay alone, had only sprouted.

After this experiment was made, I procured several small pots, and in each put the same quantity of clay. To the first I added a drachm of sea-coal; to the second, a drachm of horse manure; to the third, the same quantity of plaster of Paris; and to the fourth, the same quantity of common ashes: the fifth was left without any addition. To each of these the same number of sound grains of wheat and corn were added. The precautions taken in the first experiment, were strictly adhered to in this instance. In a few days my great expectations from the pit-coal were somewhat lessened, by perceiving that the wheat in the horse manure was an inch high before that of the other pots appeared: however, this was but a short time; for the wheat in the pot with the sea-coal came up, grew to an equal height in a few days, and in a fortnight, although the weather was cold, *exceeded it by two inches*. The corn in the pot with coal, maintained a still greater superiority: it appeared more healthy, and was *more than twice* as large as the *largest* in the other pots. Several of my acquaintances were astonished, to see this great difference in vegetation, produced in so short a time.

Pit-coal must be cheaper than any article used as a manure, since it is found in so many parts of this country. The above experiments unquestionably show, that when powdered, its powder, in quickening the vegetation of corn and wheat, is much greater than any manure with which we are acquainted. Our knowledge of the effects of chemical bodies on growing vegetables, is but in its infancy. Probably the discoveries which have been made are not as generally known as they should be. It may be owing to this cause,—for example, that an ounce of sulphuric acid is not added to every cart load of manure; which has long since been found, in England, to render it doubly valuable.

I congratulate my fellow-citizens of Virginia, on their prospect of renovating their large tracts of impoverished lands. By speedily using the coal in their inexhaustible mines, I hope the fertility of all their farms will soon be restored; and that the laboring poor, among my hospitable countrymen, in future, may not suffer so much as to be dependent for bread.

THOMAS EWELL.

Georgetown, district of Columbia.

MISCELLANEOUS ARTICLES.

ARTICLE III.

A Bill of Mortality in Concord, (Mass.) from January 1, 1779, to January 1, 1806, 27 Years; communicated in a Letter, by the Rev. EZRA RIPLEY, dated Concord, February 8, 1806.

Year.	No.	1 Year old or under.	70 Years and upward.	80 Years and upward.	90 Years and upward.
Died in 1779	12	2	5	1	0
80	12	2	0	0	0
81	15	2	6	4	3
82	18	2	9	4	1
83	24	5	4	1	0
84	16	4	4	2	2
85	17	1	2	0	0
86	19	4	4	2	1
87	12	2	2	1	0
88	19	2	6	3	0
89	17	2	5	5	1
90	26	4	7	3	0
91	17	3	6	3	0
92	26	4	4	2	1
93	19	2	5	2	2
94	20	1	5	3	1
95	21	0	4	2	0
96	26	2	6	1	0
97	21	3	6	3	0
98	22	1	8	3	1
99	20	0	5	1	0
1800	25	5	6	3	1
1	32	4	8	4	0
2	27	3	7	2	0
3	38	3	5	3	1
4	29	4	7	3	1
5	35	10	8	6	0
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	575	77	144	67	16

The number of males 247, of females 328, of blacks 17.

Of the above, 6 died of the small-pox natural way, 2 by inoculation, 20 by casualties, 93 of consumptions, 20 of palsies, 7 of apoplexies, 9 of cancers, and 2 of the lock-jaw. The remaining number died of the various kinds of fevers and other diseases which usually attack and destroy the human body. No particular disease has raged among us in any one season, except the small-pox.

The writer of this does not affirm, that the above statement is perfectly just, but he is confident that it is very nearly correct. It may not be improper to observe, that still-born chil-

dren, strangers, and residents for a short term, who have died in this town, are not reckoned.

On the above bill, presented us by the Rev. Mr. RIPLEY, we will take the liberty to remark, that more than one in three of those who have died reached the respectable old age of seventy or more years; one in seven died at one year old or under.

Concord, according to the last census, contains about 1679 inhabitants.

ARTICLE IV.

A Bill of Mortality in Portsmouth, (N. H.) from January 1, 1801, to January 1, 1806, 5 Years.

Dr. LYMAN SPALDING of Portsmouth, publishes annually a very regular and a correct bill of mortality for that place. To the polite attention of this gentleman, in forwarding us his bills for the five last years, we are indebted for the following information.

Year.	No.	1 Year old or under.	70 Years and upward.	80 Years and upward.	90 Years and upward.
Died in 1801	100	15	7	5	2
1802	150	30	5	3	2
1803	147	27	7	8	0
1804	110	32	4	5	1
1805	135	24	5	7	1
	<hr/> 642	<hr/> 128	<hr/> 28	<hr/> 28	<hr/> 6

Of the above, 124 died of consumption, 61 of fevers, 31 of canker-rash (scarlatina,) 40 of colera infantum (of infants,) 27 of hooping-cough, 11 of measles, all in 1802, 7 of croup in 1805, 16 of quinsy, 5 of dysentery, 30 of palsy, 12 of apoplexy, 5 of cancers, 2 of lock-jaw, 29 of casualties.

1801.—“A bilious remitting fever prevailed the whole year. From June to October the colera infantum was prevalent. From September to the end of the year, the hooping-cough was endemic.”

1802.—“Very unhealthy, some epidemic having raged the whole year. The hooping-cough in January and February was very prevalent, and some sporadic cases continued till September. The measles made their appearance about the middle of March, and were very prevalent till July; at which time a bilious malignant fever made its appearance, and con-

tinued till August; when the colera and canker-rash commenced, and continued through the year."

1804.—"The colera of infants made its appearance in June, and concentrated into November. The whooping-cough appeared in September, and prevailed to the end of the year. The quinsy, or croup, was first noticed in October, and its footsteps are traced to the last of December."

About one in *twenty-three* of those who died reached the age of seventy or more years; one in *five* died at one year old or under. Still-born children, and premature births, are not taken into this calculation.

The Doctor, in his bills for the *three* years last passed, has been so particular as to mark the sexes. In these three years, 76 have died of consumption; of these, 20 were males, and 56 females!

The marriages and births for the last three years have been as follows:

<i>Births.</i>			<i>Marriages.</i>
1803	{ Males, 106 Females, 107 }	total 213	—
1804	{ Males, 163 Females, 130 }	total 293	64
1805	{ Males, 138 Females, 157 }	total 295	67
Total 801			—

Portsmouth is situated 43° 5' north latitude, and 6° 20' east longitude, from Washington; and contains about 6000 inhabitants.

Question.

WHY is it that the ravages of the *Consumption* are so much greater with the female sex than with the male?

ARTICLE V.

Mammoth SQUASH; communicated in a Letter from ASA JOHNSON, Esq. dated Leominster, October 28, 1805.

DR. ADAMS,

I RAISED this season, in my garden, a squash, of a species commonly known by the name of *Yellow crooked neck winter Squash*, which exceeded any thing of the kind I have ever before seen. Its dimensions, measuring from the centre of its stem over its back, on the convex side, to the centre of its stern, were *forty-seven* inches; round its neck, near the stem,

twenty-one inches; round its body, *thirty* inches: it weighed *thirty-five* pounds. This squash was palatable and good.

ASA JOHNSON.

ARTICLE VI.

Meteorological and other Observations.

CORRESPONDENCIES have been opened with gentlemen in different places, generally at the distance of about *fifty* miles one from the other; the number of which will be still further increased, for the purpose of obtaining courses of *meteorological* and other observations, directed particularly to the degrees of heat, or variations of the thermometer (Fahrenheit's) at sun-rise and at two o'clock P. M. course of the winds, weather, quantity of snow or rain fallen, progress of the seasons and of vegetation, state of health and the most prevalent diseases, particularly epidemical diseases, their mortality, blights, mildews, insects, &c.

The remarks on vegetation will commence with the first appearance of it in the spring, and will be made on the putting forth of leaves and the blossoming of trees, the flowering of plants, the progress and the maturity of the several kinds of grain, the falling of leaves, and other symptoms of decay in autumn. In these observations, a preference will be given to those vegetables and trees which are of the most valuable kind, and which are the most common and easy of observation.

Such is the design before us, the utility of which, provided it shall be properly executed, is too abundantly evident to require any particular illustration. The influence of our atmosphere and of the seasons, in their great variations, on the health of the inhabitants of this country, has been but too little observed. The present inquiry, instituted at different places, in towns on our sea-coast and in the country, will lead to a double comparative view of these subjects: 1. A comparison of the different states of the atmosphere, degrees and variations of heat and moisture, season, vegetation, and the corresponding health or diseases of the inhabitants, in *different* places the *same* year; and 2. A like comparison of the same subjects, at the *same* places in *different* years. Such an inquiry, carefully and diligently pursued, it must be expected, cannot fail of casting some new light on the climate and the diseases of our country.

These observations commenced for January in only three different towns: they have since been commenced, or are about being commenced, in various other places.

Result of Meteorological and other Observations, for January, 1806; made at MASON, (N. H.) 50 Miles northwest of Boston, by the Rev. EBENEZER HILL; at LEOMINSTER, (Mass.) 45 Miles westwardly from Boston, by ABIJAH BIGELOW, Esq.; at CONCORD, (Mass.) 18 Miles northwest of Boston, by Dr. ISAAC HURD:—For the Medical and Agricultural Register.

January, 1806.	Mean degs: at sun-rise.	Mean degs: at 2 P. M.	Mean deg. of the mo.	Greatest heat in the month.	Least heat in the month.	Prevailing winds.	Marriages.	Births.	Deaths.
Mason	25 $\frac{1}{3}$	33 $\frac{2}{3}$	29 $\frac{2}{3}$	30th day 55°	18th day 4°	W. N. W. & N.			1
Leominster	25 $\frac{2}{3}$	34 $\frac{1}{3}$	29 $\frac{2}{3}$	30 51	18 4				
Concord	20 $\frac{1}{3}$	30 $\frac{2}{3}$	25 $\frac{1}{3}$	30 48	16 $\frac{0}{18}$	N. E. & N. W.	3	2	2

WEATHER.

Mason.	Inc.	Leominster.	Concord.	Inc.
3d day, snow, N. fair 10 A. M.	1 $\frac{1}{2}$	3d day, snow, N. fair 10 A. M.	3d day, snow, N.	1 $\frac{1}{2}$
7th, snow, N. E.	4	4th, rain in the evening.	7th, snow, N. E. sprink. of rain.	2 $\frac{1}{2}$
9th, snow, N. W.	3	7th, snow, N. E. 4 P. M. rain.	9th, snow, N. E.	6
10th, a little snow at evening.		9th, snow, wind northwd.	10th, snow evening, S. E.	
13th, sprink. of rain and misty, snow at night, S. W.	18	10th, a little snow at evening.	13th, rain, snow at 4 P. M. wind W. by N.	9
14th, snow day and night, N.		13th, rainy morning, snow at night.	14th, snow, N. E.	
15th, cloudy, fair.	7	14th, snow and hail day and night.	15th, snow in morn.	8 $\frac{1}{2}$
19th, snow began at evening, N.		15th, snow in morning.	19th, snow 5 P. M. N. N. E.	
20th, snow, W. of N.		19th, snow 4 P. M. N.	20th, severe storm.	
21st, cloudy, freezing mist, still.	22	20th, snow, even. mist with rain.	21st, cloudy, N. N. E.	22
22d, snow 7 P. M. N.		21st, cloudy, trees covered with ice.	22d, cloudy, snow, N. N. E.	
23d, snow day and night, W. of N.		22d, snow at night.	23d, violent storm, 9 P. M. rain thro' the night, snow settled 8 inches.	
24th, snow till 9 A. M. fair.		23d, snow, wind northwardly.	24th, snow, wind N. N. E.	
		24th, cloudy.		
Total of snow ft. 4	7 $\frac{1}{2}$		Total of snow ft. 4	1 $\frac{1}{2}$

Mason.—The depth of snow was taken either from actual measurement or from the judgment of men who had been where it did not drift; in which case, the mean difference of their opinions has been taken.

Concord.—The thermometer abroad, at N. N. E. In the snow storm of the 22d, 23d, and 24th, no deduction is made for the settling of the snow by the rain; the total of the snow for the three days was 22 inches.

The thermometer at Mafon and at Leominster, we understand is situated in an open or some unfinished apartment of the house. This consideration will assist us in reconciling the difference in the result of the degrees of heat in those places and that of Concord. To those who are not particularly acquainted with this instrument, it may be proper to observe, that 32° is called the freezing point, that is, when the quicksilver stands at 32 degrees water freezes; 76° is called summer heat; 98° blood heat; and at 212° water boils.

The result of the degrees of heat for Mafon and Leominster compare very nearly together. There were but very few days in the month, however, in which the state of the thermometer was exactly the same in both places, differing 1°, 2°, 3°, 4°, and in some instances 6°, in one place, from that in the other. Leominster is situated about 18 miles to the east of south from Mafon, upon which you come immediately after descending from off the high lands. For Mafon, see topographical description, page 13 of our first number.

The particular and minute attention of those gentlemen engaged in these observations, is highly gratifying to us, and it is presumed will be greatly satisfactory to our readers.

N O T E.

A COMMUNICATION from a very respectable source, on the planting and pruning of apple trees, has been received; it did not, however, come to hand till our Agricultural department was in type; it is therefore reluctantly deferred till our next number. The attention of the husbandman, on the opening of a new year, is generally

first directed towards his fruit trees, for which reason we have been the more particular on this subject, in our first numbers. It is a practice, however, of our best cultivators, authorized by sound reasoning and by experience, to suspend the operation of pruning for several weeks yet to come.

CONDITIONS OF THE REGISTER.

PUBLISHED monthly, the last Wednesday of every month, at *One Dollar* per annum, delivered at the office, payable half yearly.

CONDUCTED BY DANIEL ADAMS, M. B.

BOSTON:—Printed by MANNING & LORING, at whose Bookstore, No. 2, Cornhill, any orders or communications for the *Register* will be received.